



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,600	04/02/2007	Atsushi Takahashi	003913.118325	4762
7590 Pitney Hardin LLP 7 Times Square New York, NY 10036-7311				
EXAMINER CHIN, RANDALL E				
ART UNIT		PAPER NUMBER		
3723				
MAIL DATE		DELIVERY MODE		
06/25/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/579,600

**Applicant(s)**

TAKAHASHI, ATSUSHI

**Examiner**

Randall Chin

**Art Unit**

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-17 is/are pending in the application.
- 4a) Of the above claim(s) 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date 04162009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Brandli 4,395,943 (hereinafter Brandli).

As for claim 7, the patent to Brandli discloses a "small-diameter" (merely a relative expression) resin twisted brush comprising a plurality of resin filaments 2 (since it's an interproximal toothbrush with typical plastic or resin filaments) having resilience, straightenability, and suppleness, at least to a degree or minimal/infinitesimal degree (and all deemed merely relative), for that matter, at least two resilient stem resin filament rods 3, 3 (col. 2, lines 17-23), said plurality of resin filaments being clamped between said at least two resilient stem resin filament rods (Fig. 1), said at least two resilient resin stem rods 3, 3 being twisted about one another, thereby forming said brush with helical bristles formed by said plurality of resin filaments extending radially from said at least two twisted resilient stem resin filament rods (Fig. 1), whereby said small-diameter resin twisted brush is deemed **capable of** adapting to three-dimensional deformed conditions and of recovering an initial shape ("whereby" clause is deemed merely functional).

As for claim 9, said at least two resilient stem resin filament rods 3, 3 are deemed coated with a thermally fusible resin material 4 (Fig. 2; col. 2, lines 17-21). As for claim 9 further reciting that said thermally fusible resin filament rod is "fused during manufacture of said small-diameter resin twisted brush" to firmly hold said plurality of resin filaments between said at least two twisted resilient stem resin filament rods, and to prevent said at least two twisted resilient stem resin filament rods from detwisting, it should be noted that methods of forming are not germane to patentability in apparatus claims.

As for claim 10, said at least two resilient stem resin filament rods 3, 3 are color-coded with a pigmented resin to indicate the size of said helical bristles (col. 2, lines 39-42).

As for claim 11, ends of said at least two resilient stem resin filament rods adjacent to said helical bristles are deemed "smoothed" (since this is merely deemed a relative term) to remove sharp edges.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brandli in view of Charvat 3,124,823 (hereinafter Charvat).

The patent to Brandli discloses all of the recited subject matter as set forth above with the exception of the resin twisted brush further comprising at least one thermally fusible resin filament rod parallel to said at least two resilient stem resin filament rods. The patent to Charvat discloses a resin twisted brush comprising at least one thermally fusible resin filament "rod" structure (col. 2, lines 42-72 and col. 4, lines 6-20) defined by supporting material 9 parallel to at least two resilient stem filament rods. It would have been obvious to one of ordinary skill in the art to have provided Brandli's resin twisted brush with at least one thermally fusible resin filament rod parallel to said at least two resilient stem resin filament rods as suggested by Charvat for the purpose of providign added support and preserving the structural integrity of the brush upon repeated bending. As for claim 8 further reciting that said at least one thermally fusible resin filament rod is "fused during manufacture of said small-diameter resin twisted brush" to firmly hold said plurality of resin filaments between said at least two twisted resilient stem resin filament rods, and to prevent said at least two twisted resilient stem resin filament rods from detwisting, it should be noted that methods of forming are not germane to patentability in apparatus claims.

### ***Conclusion***

5. Applicant's arguments filed 16 April 2009 have been fully considered but they are not persuasive.

Applicant's remarks and arguments have been considered in their entirety, however, are deemed persuasive. Applicant's remarks are primarily directed to general

comments as to interdental prior art brushes as well as features of the brush of the present invention itself. Applicant's arguments are not primarily directed to the applied patent to Brandli based upon 35 USC 102. Applicant's single argument that Brandli shows an interproximal toothbrush comprising metal wires which have a coating forming an electrically insulating layer and that it neither shows nor suggests a brush lacking any metal components is unpersuasive since claim 7, for example, would not preclude the presence of there being any metal in the first place. The fact that Brandli may disclose more than is necessary is patentably irrelevant for claim 7, for example.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (571) 272-1270. The examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randall Chin/  
Primary Examiner, Art Unit 3723